Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (Cancelled).

2(Currently amended). ~~Method of preparation of~~ A method for preparing a population of circulating $CD34^+$ cells ~~capable of regenerating~~ which regenerate hematopoiesis *in vivo*, comprising:

a) administering to a donor a composition comprising growth hormone or one of its derivatives or any factor inducing growth hormone release, simultaneously or separately with a composition comprising G-CSF, in an amount sufficient to enhance the mobilization or peripheralization effect of G-CSF to further increase in said donor the number of circulating $CD34^+$ cells ~~capable of regenerating~~ which regenerate hematopoiesis *in vivo*[[.]] beyond that achieved by G-CSF alone; and

b) isolating a population of circulating $CD34^+$ cells ~~capable of regenerating~~ which regenerate hematopoiesis *in vivo* from the peripheral blood of said donor.

Claims 3 and 4 (Cancelled).

5(Currently amended). ~~Method~~ The method according to claim [[4]] 2, wherein the increased number of $CD34^+$ cells is more than 10, 25, 34 or 80 $CD34^+$ cells per microliter of donor peripheral blood.

6(Currently amended). ~~Method~~ The method according to claim [[4]] 2, wherein the increased number of $CD34^+$ cells is at least $2x10^6$, $4x10^6$, $5x10^6$, $6x10^6$, $8x10^6$, $15x10^6$ $CD34^+$ cells per kilogram of donor body weight.

7(Currently amended). ~~Method~~ The method according to ~~any one of claims 1 to 3~~ claim 2, wherein the increased number of circulating $CD34^+$ cells ~~capable of regenerating~~ which regenerate hematopoiesis *in vivo* corresponds to ~~around or more than~~ about 500 or more CFU-GM per milliliter of donor peripheral blood.

8(Currently amended). ~~Method~~ The method according to ~~any one of claims 1 to 3~~ claim 2, wherein the increased number of circulating $CD34^+$ cells ~~capable of regenerating~~ which regenerate hematopoiesis *in vivo* corresponds to an increased level of CFU-C, CFU-Meg or BFU-E in donor peripheral blood.

9(Currently amended). ~~Method~~ The method according to ~~any one of claims 1 to 3~~ claim 2, wherein the increased number of circulating $CD34^+$ cells ~~capable of regenerating~~ which regenerate hematopoiesis *in vivo* substantially corresponds to a white blood

cell count of ~~around or more than~~ about 1000 or more cells per microliter of donor peripheral blood.

10(Currently amended). ~~Method~~ The method according to ~~any one of claims 1 to 3~~ claim 2, wherein the increased number of circulating $CD34^+$ cells ~~capable of regenerating~~ which regenerate hematopoiesis *in vivo* corresponds to ~~around or more than~~ about $1x10^5$ or more GM-CFC per kilogram of donor or recipient body weight.

11(Currently amended). ~~Method~~ The method according to ~~any one of claims 1 to 3~~ claim 2, wherein the circulating $CD34^+$ cells ~~capable of regenerating~~ which regenerate hematopoiesis in vivo are $CD34^+/CD33^+$ cells and/or $CD34^+/CD38^-$ cells and/or $CD34^+$/Thy-I cells and/or $CD34^+$/Thy-I/$CD38^-$ cells ~~and/or $CD33^+$ cells~~ and/or bone-marrow stem cells and/or progenitor cells and/or long-term culture initiating cells (LTC-IC) and/or cells that fulfill self renewal potential and/or cells that fulfill pluripotential characteristics and/or cells that initiate long term bone marrow culture and/or cells that can generate multiple cell lineages.

12(Currently amended). ~~Method~~ The method according to ~~any one of claims 1 to 3~~ claim 2, wherein the target number of circulating $CD34^+$ cells ~~capable of regenerating~~ which regenerate hematopoiesis *in vivo* is at least $2x10^4$ LTC-IC per kg of donor or

recipient body, ~~around or more than~~ about $2x10^6$ or more $CD34^+$ cells per kilogram of donor or recipient body weight, ~~around or more than~~ about $4x10^6$ or more $CD34^+$ cells per kilogram of donor or recipient body weight or ~~around or more than~~ about $8x10^6$ or more $CD34^+$ cells per kilogram of donor or recipient body weight.

13(Currently amended). ~~Method~~ The method according to ~~any one of claims 1 to 3~~ claim 2, wherein the volume of blood processed in step (b) is ~~comprised~~ in a range of about 30 to about 900 milliliters.

Claims 14-17 (Cancelled).

18(Currently amended). ~~Method~~ The method according to ~~any one of claims 1 to 3~~ claim 2, wherein growth-hormone or one of its derivatives or any factor inducing growth hormone release is administered in an amount ~~comprised~~ between 20 to 50 µg/kg of donor body weight, in an amount ~~comprised~~ between 30 to 40 µg/kg of donor body weight or in an amount of 33 µg per kilogram of donor body weight.

19(Currently amended). ~~Method~~ The method according to claim [[17]] 2, wherein the G-CSF is administered in an amount ~~comprised~~ between 3 to 15 µg/kg of donor body weight, in an amount ~~comprised~~ between 4 to 12 µg/kg of donor body weight or in an amount of around 5 or 10 µg per kilogram of donor body weight.

20(Currently amended). ~~Method~~ The method according to claim 2, wherein the administration of Growth Hormone is made three times a day and the administration of G-CSF is made daily.

21(Currently amended). ~~Method~~ The method according to ~~any one of claims 1 to 3~~ claim 2, wherein the administration of said composition is made by parenteral, subcutaneous, intravenous, intramuscular, intraperitoneal, transdermal or buccal routes.

22(Currently amended). ~~Method~~ The method according to ~~any one of claims 1 to 3~~ wherein the administration of said composition is daily or three times a day.

23(Currently amended). ~~Method~~ The method according to ~~claim 1 or~~ 2, wherein the administration of said composition is made over a period of 5 days or over a period of 10 days.

24(Currently amended). ~~Method~~ The method according to ~~any one of claims 1 to 3~~ claim 2, wherein the administration begins around 7 days after the beginning of a chemotherapeutic treatment or around 2 days after the end of a chemotherapeutic treatment.

25(Currently amended). ~~Method~~ The method according to ~~any one of claims 1 to 3~~ claim 2, wherein the growth hormone is a recombinant growth hormone.

26(Currently amended). ~~Method~~ The method according to ~~any one of claims 1 to 3~~ claim 2, wherein the growth hormone is human growth hormone.

Claims 27-55 (Cancelled).

56(New). The method according to claim 2, wherein said growth hormone or one of its derivatives or any factor inducing growth hormone release is administered at a different time than said composition comprising G-CSF.

57(New). The method according to claim 2, wherein said growth hormone or one of its derivatives or any factor inducing growth hormone release is administered simultaneously with said composition comprising G-CSF.